

Notice of Allowability

Application No.

10/634,962

Examiner

Shashi K. Becker

Applicant(s)

SHARMA ET AL.

Art Unit

2179

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 8/5/03.
2. ☒ The allowed claim(s) is/are 1-6, 10-20 and 30-36.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date <u>1/29/07</u> . |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date <u>8/5/03</u> | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Rajeev Sharma and Namsoon Jung on 1/29/07.

The application has been amended as follows:

- Claims 7-9 and 21-29 have been canceled.
- Claim 1 amended to read:

A method for attracting attention of people in public places and engaging them in an interaction with a system for getting information and entertainment, comprising the following steps of:

- a) executing a wait state module playing multimedia on the system in a wait state when there are no people nearby the system,
- b) executing an attraction state module attracting the people when they appear nearby the system and encouraging them for an engaged interaction with the system by making a transition from the wait state to an attraction state,
- c) executing an user engagement state module helping a user who decided to use the system to learn how to use the system at an user engagement state,

Art Unit: 2179

d) executing an user interaction state module allowing the user to select and use the content of the information and entertainment of the system at an user interaction state, and

e) executing an user terminations state module finalizing the user interaction at an optional interaction termination state, to which the system can make a transition at the end of the user interaction from the user interaction state,

wherein the step c) of helping a user at the user engagement state can be skipped if the user does not need the content of the user engagement state,

wherein the step d) further allows the user to navigate from one content of the information and entertainment to another content of the information and

entertainment at the user interaction state and whereby the steps are repeated in a loop by going back to the wait state after the user interaction is terminate at the user interaction state or at the optional interaction termination state, and

f) executing an image capturing system and a set of computer vision algorithms for user sensing and hand motion sensing; wherein said image-capturing system divides its field of view into a plurality of capture zones, and apply said set of computer vision algorithms within said capture zones to sense said user and said hand motion, and wherein said user is promoted or demoted depending on the coordinate of said user's position in said plurality of capture zones of said image-capturing system.

- Claim 2 line 1, amended to replace "the states comprise" with --each state comprises--.

Art Unit: 2179

- Claim 10 line 2, amended to delete “its,” replace “such as” with --including-- and delete “if said image capturing system is equipped with these functionalities,” on line 3.
- Claim 11 line 1, amended to read: --The method according to claim 1, wherein the essentials of a background technology based on the computer vision algorithms further comprises 3-I technologies including: the intelligence technologies, the interaction technologies, and the immersive technologies--.
- Claim 12 amended to replace “Intelligence Technologies” with -- intelligence technologies--.
- Claim 13 amended to replace “Interaction Technologies” with --“interaction technologies--.
- Claim 14 amended:
 - replace “Immersive Technologies” with --immersive technologies--.
 - undo italics for “passive immersion,” “active immersion,” and “mixed immersion”.
 - line 5, replace “such as” with --including:--.
 - lines 2 and 8 replace “(Augmented Reality)” with --or augmented reality--.
- Claims 15-20 and 31-36 amended terms to lower case, “Wait State,” “Attraction State,” “User Engagement State,” “User Interaction State,” and “Interaction Termination State.”
- Claims 16 and 32 amended:
 - (line 2), replace “the embodiment” with --an embodiment--.

-(line 3), replace "attraction means" with-- means for attracting--.

-(line 5), replace "said invention" with --said method--.

- Claims 17 and 33 amended:

-(line 3) replace "the embodiment" with --an embodiment--.

-(line 4) delete comma at end of sentence

-(line 5) delete "whereby the training methods can be".

-(line 5) replace, " in the graphical, the vocal and the literal forms" with -- in graphical, vocal or literal forms--.

- Claims 19 and 35 line 4, amended to delete "(crowd)"
- Claims 30-36 amended to replace all "apparatus" with "system"
- Claim 30 amended to read:

A system for attracting attention of people in public places and engaging them in an interaction with a system for getting information and entertainment, comprising the following steps of:

- a) executing a wait state module playing multimedia on the system in a wait state when there are no people nearby the system,
- b) executing an attraction state module attracting the people when they appear nearby the system and encouraging them for an engaged interaction with the system by making a transition from the wait state to an attraction state,
- c) executing an user engagement state module helping a user who decided to use the system to learn how to use the system at an user engagement state,

d) executing an user interaction state module allowing the user to select and use the content of the information and entertainment of the system at an user interaction state, and

e) executing an user terminations state module finalizing the user interaction at an optional interaction termination state, to which the system can make a transition at the end of the user interaction from the user interaction state,

wherein the step c) of helping a user at the user engagement state can be skipped if the user does not need the content of the user engagement state,

wherein the step d) further allows the user to navigate from one content of the information and entertainment to another content of the information and

entertainment at the user interaction state and whereby the steps are repeated in a loop by going back to the wait state after the user interaction is terminate at the user interaction state or at the optional interaction termination state, and

f) executing an image capturing system and a set of computer vision algorithms for user sensing and hand motion sensing; wherein said image-capturing system divides its field of view into a plurality of capture zones, and apply said set of computer vision algorithms within said capture zones to sense said user and said hand motion, and wherein said user is promoted or demoted depending on the coordinate of said user's position in said plurality of capture zones of said image-capturing system.

- Claim 36 amended:

- (lines 4, 6, and 8), replace "whereby" with --wherein--.

Art Unit: 2179

- (lines 6 and 7), replace "based technologies" with --algorithms--.
- (line 8), replace "said data" with --a data--.

REASONS FOR ALLOWANCE

The following is an examiner's statement of reasons for allowance: Independent claims 1 and 30, when considered as a whole in light of the specification, is allowable over the prior art of record. Specifically, prior art of record fails to teach or suggest the limitations executing an image capturing system and a set of computer vision algorithms for user sensing and hand motion sensing; whereby said image-capturing system divides its field of view into a plurality of capture zones, and apply said set of computer vision algorithms within said capture zones to sense said user and its hand motion and, whereby said user is promoted or demoted depending on the coordinate of said user's position in said plurality of capture zones of said image-capturing system.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shashi K. Becker whose telephone number is 571-272-8919. The examiner can normally be reached on Mon-Fri 8:30-5.

Art Unit: 2179

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Weilun Lo can be reached on 571-272-4847. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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SUPERVISORY PATENT EXAMINER